

## Mouse anti-Human PD-1 Monoclonal Antibody | anti-PDCD1 antibody

PD-1 Antibody [10B3]

| CATALOG # | HOST  | REACTIVITY | APPLICATIONS                                                                                                         |
|-----------|-------|------------|----------------------------------------------------------------------------------------------------------------------|
| AAA10981  | Mouse | Human      | ELISA, Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay |

### PRODUCT SYNONYMS

PD-1; Monoclonal Antibody; PD-1 Antibody [10B3]; PD-1 Antibody; PD1; CD279; SLEB2; hPD-1; hPD-I; hSLE1; Programmed cell death protein 1; Protein PD-1; PDCD1; PDCD-1; anti-PDCD1 antibody

### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                                                                                           |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Mouse                                                                                                                                                                                                                                     |
| Reactivity                                      | Human                                                                                                                                                                                                                                     |
| Clonality                                       | Monoclonal                                                                                                                                                                                                                                |
| Isotype                                         | IgG1                                                                                                                                                                                                                                      |
| Clone Number                                    | 10B3                                                                                                                                                                                                                                      |
| Purity/Purification                             | Protein A purified IgG1.                                                                                                                                                                                                                  |
| Form/Format                                     | Liquid                                                                                                                                                                                                                                    |
| Concentration                                   | 1 mg/mL (varies by lot)                                                                                                                                                                                                                   |
| Sequence Length                                 | 288                                                                                                                                                                                                                                       |
| Applicable Applications for anti-PDCD1 antibody | ELISA, WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry)                                                                                                       |
| Application Notes                               | Western blot at 1 - 2 mug/mL.<br>Immunohistochemistry starting at 5 mug/mL.<br>Immunofluorescence start at 20 mug/mL.<br>Flow cytometry at 0.1 mug/ml.                                                                                    |
| Conjugate                                       | Unconjugated                                                                                                                                                                                                                              |
| Immunogen                                       | PD-1 antibody was raised against the extracellular domain of human PD-1.                                                                                                                                                                  |
| Buffer                                          | PD-1 Antibody is supplied in PBS containing 0.02% sodium azide.                                                                                                                                                                           |
| Species                                         | Human                                                                                                                                                                                                                                     |
| Preparation and Storage                         | Store at 4 degree C for three months and -20 degree C, stable for up to one year.<br>As with all antibodies care should be taken to avoid repeated freeze thaw cycles<br>Antibodies should not be exposed to prolonged high temperatures. |

IMAGES



**ELISA**  
Titration curve analysis of PD-1 mAbs to detect recombinant PD-1 in ELISA with abs at decreasing concentrations.



**IHC (Immunohistochemistry)**  
A) Immunohistochemistry of PD-1 in human breast cancer tissue with PD-1 [10B3] antibody at 10 &#956;g/mL. (B) Immunohistochemistry in human breast cancer tissue with control mouse IgG staining at 10 &#956;g/mL.



**FCM (Flow Cytometry)**  
Flow cytometry analysis of PD-1 transfected 293 cells using PD-1 [10B3] antibody at 1 &#956;g/ml. Blue: untransfected cells, Yellow: PD-1 transfected cells.



**IF (Immunofluorescence)**  
Immunofluorescence of PD-1 in human spleen tissue with PD-1 [10B3] antibody at 10 &#956;g/mL.Green: PD1 Antibody [10B3]Blue: DAPI staining



**IHC (Immunohistochemistry)**  
A) Immunohistochemistry of PD-1 in human spleen tissue with PD-1 [10B3] antibody at 10 &#956;g/mL. (B) Immunohistochemistry in human spleen tissue with control mouse IgG staining at 10 &#956;g/mL.



**ICC (Immunocytochemistry)**  
Immunocytochemistry of PD-1 in transfected 293 cells with PD-1 [10B3] antibody at 10 &#956;g/mL. Lower left: Immunocytochemistry in transfected 293 cells with control mouse IgG antibody at 10 &#956;g/mL.

ADDITIONAL INFORMATION

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-PDCD1 antibody | Cell-mediated immune responses are initiated by T lymphocytes that are themselves stimulated by cognate peptides bound to MHC molecules on antigen-presenting cells (APC). T-cell activation is generally self-limited as activated T cells express receptors such as PD-1 (also known as PDCD-1) that mediate inhibitory signals from the APC. PD-1 can bind two different but related ligands, PDL-1 and PDL-2. Upon binding to either of these ligands, signals generated by PD-1 inhibit the activation of the immune response in the absence of "danger signals" such as LPS or other molecules associated with bacteria or other pathogens. Evidence for this is seen in PD-1-null mice who exhibit hyperactivated immune systems and autoimmune diseases. PD-1 is thus one of a growing number of immune checkpoint proteins. |
| Product Categories/Family for anti-PDCD1 antibody   | Apoptosis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| References                                          | 1. Holling TM, Schooten E, and van Den Elsing PJ. Function and regulation of MHC class II molecules in T-lymphocytes: of mice and men. Hum. Immunol. 2004; 65:282-90. 2. Ishida Y, Agata Y, Shibahara K, et al. Induced expression of PD-1, a novel member of the immunoglobulin gene superfamily, upon programmed cell death. EMBO J. 1992; 11:3887-95. 3. Zhong X, Bai C, Gao W, et al. Suppression of expression and function of negative immune regulator PD-1 by certain pattern recognition and cytokine receptor signals associated with immune system danger. Int. Immunol. 2004; 16:1181-8. 4. Nishimura H, Nose M, Hiai H, et al. Development of lupus-like autoimmune diseases by the disruption of the PD-1 gene encoding an ITIM motif-carrying immunoreceptor. Immunity 1999; 11:141-51.                               |

NCBI AND UNIPROT INFORMATION

|                         |                                       |
|-------------------------|---------------------------------------|
| NCBI GI #               | 145559515                             |
| NCBI GeneID             | 5133                                  |
| UniProt Accession #     | Q15116; O00517; Q8IX89                |
| Molecular Weight        | Predicted: 32 kDa<br>Observed: 38 kDa |
| NCBI Official Full Name | Programmed cell death protein 1       |

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| NCBI Official Synonym Full Names | programmed cell death 1                      |
| NCBI Official Symbol             | PDCD1                                        |
| NCBI Official Synonym Symbols    | PD1; PD-1; CD279; SLEB2; hPD-1; hPD-I; hSLE1 |
| NCBI Protein Information         | programmed cell death protein 1              |
| UniProt Protein Name             | Programmed cell death protein 1              |
| UniProt Gene Name                | <b>PDCD1</b>                                 |
| UniProt Synonym Gene Names       | PD1; Protein PD-1; hPD-1                     |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/pd-1-antibody-clone-10b3-western-blot-immunohistochemistry-immunocytochemistry-immunofluorescence-flow-cytometry-elisa/10981>